ZHIYUAN WANG

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EDUCATION

University of Southern California (USC) Los Angeles, CA
M.S. in Computer Science; GPA: 3.85/4.0 August 2016 – May 2018
Zhejiang University (ZJU) Hangzhou, China
B.Eng. in Information Engineering; GPA: 3.87/4.0; Outstanding Graduate September 2012 – June 2016

TECHNICAL SKILLS

- Proficient in C++, Java, Python, C, MATLAB, Linux, git, OpenCV, Caffe, Visual Studio, Eclipse, Emacs
- Familiar with JavaScript, AJAX, jQuery, Bootstrap, AngularJS, PHP, Android

WORK EXPERIENCE

Graduate Research Assistant USC
Unlocking Map: Automatic Metadata Creation for Digital Collections January 2017 – present

- Design, implement and test algorithms extracting and recognizing text in map images.

Research Software Development Intern WonderMatrix VR
Stereo Panoramic Rendering System April – June 2016

- Built a stereo panoramic scene rendering system with unprecedented high quality.
- Taking images captured from various directions as well as depth information as input, produced high-quality rendering results for GearVR HMD.
- Unlike existing solutions, the novel solution produces result free of rendering and stitching artifacts and reproduced realistic 3D effect for the viewer.
- Designed and implemented core stitching algorithm; refactored the rendering code to reduce memory footprint by a factor of 18x.

PROJECTS

Congress Information Search Android App November 2016
Java, PHP, AWS

- Built an App product on Android; Implemented information searching, filtering and displaying for congress legislators, bills and committees.
- Implemented back-end PHP script running on AWS to request and retrieve JSON from RESTful API web server.
- Implemented four fragment activities in Android App, each with several tabs containing list of results; Used AsyncTask to request and retrieve search results with back-end AWS server.

Congress Information Search Webpage October 2016
JavaScript, AJAX, Bootstrap, AngularJS, PHP, AWS

- Built a responsive webpage with functions including information searching, filtering and displaying for congress legislators, bills and committees.
- Implemented webpage using JavaScript, with AngularJS framework, jQuery and Bootstrap. Used AngularJS Pagination and Filters for item listing, Bootstrap Form, Togglable tabs and Carousel for page appearance design.

Pedestrian Detection Based on Deep Learning February – June 2016
Python, Caffe, C++

- Implemented image-based pedestrian detection in Caffe framework, with Average Precisions (AP) reaching 85.1%, boosted 10% from original best algorithms.
- Adopted Selective Search algorithm extracting proposal, Fast R-CNN as detector, and AlexNet and VGGNet as network structure.
- Pre-trained the networks on ImageNet dataset, fine-tuned on INRIA Pedestrian Image Train dataset, and tested on INRIA Pedestrian Image Test dataset.